TOOL KIT (RESOURCES) FOR MATERNAL AND CHILD MORTALITY REDUCTION PROGRAMMES IN LOW RESOURCE SETTINGS – A CALL FOR GLOBAL ACTION

Key features – The Tool Kit Manual is a resource to be used for guidance in planning and implementing an effective programme for reduction of preventable mother and child deaths in low resource settings, in collaboration with Rotary ,CALMED Collaborators and University of Geneva Hospital (HUG)

Background - Maternal and new-born mortalities in low resource countries, are largely preventable. These are related not only to medical issues, but also to public health and societal/cultural issues, highlighted by the "Three Delay Model" in accessing effective care in childbirth emergencies. We believe a holistic strategic action is needed, if we are to move towards reaching the SDG goals. For impact and sustainability, partnership of health care providers with Government, NGOs and civil societies is very necessary. We present a tool kit comprising of ideas and actions based on our experience, available evidence base and opinions/expectations of experienced players in these fields including the WHO. It is based on the PDCA (plan, do, check and act) principle. The components have been field tested in the Rotary Calmed programmes(www.calmedrotary.org) in two states in India. The programme will be implemented in a third state in India ,in the autumn of 2020.

Rationale - These represent not only a dash board view of but also a helicopter view of the problems in low resource settings, and their strategic solutions. These guidelines should be adapted for individual countries and areas and up dated.

VOLUME 1

Chapter 1 – CALMED principle **-**empowerment through structured training. **HB**

Chapter 2- Needs Assessment in the target area- methods and decision making.

Maternal and Perinatal Mortality Reduction strategy in low resource settings based on needs assessment linked with the three delay model

Indicators	Problems	Solutions
First delay in care - in the community	Lack of awareness in the community, of maternity and child care matters, and family planning	Training/Empowerment programme of community women's groups through pictorial charts (**available as GLOWM sponsored CALMED Document**)***, videos with subtitles in local language ,Cell

		phone-based programme (WoW), to enhance health seeking behaviour in the communities Group Antenatal Care and Self training are also promoted
Second delay in care	Lack of awareness about serious nature of emergency problems, Lack of emergency transport Lack of understanding re: basic resuscitation facilities at community/primary care level, before ambulance transfer	Behavioural changes through training and advocacy, Low cost ambulance – E-ranger bike Training of Paramedical Staff Maternity Emergency Response Network (MERN)– resuscitation /stabilisation prior to fast track ambulance transfer “Golden hour” concept Tracking of mother and baby through to the hospital
Third delay in care- in hospital facilities	Lack of prioritising maternal and new-born emergencies, Lack of trained professionals in hospital Lack of supervision on site by trained seniors. Behavioural dysfunction - apathy ,lack of respect, neglect	Respect for women centred care ,Behavioural changes through structured training ,BEmONC (WHO) training, through training the trainer model, aiming an extended skills trained workforce; Regular retraining , Improved availability/supervision by senior doctors. Mentoring Telemedicine /Telehealth
Dysfunctional hospital	Lack of medicines, functioning equipment, electricity, water, Sanitation facilities and WASH practice	Obstetric Quality Assurance and correction by health care providers ,Government and NGOs
Lack of governance, discipline, accountability, persistent failure of programmes	Preventable maternal and perinatal deaths	Training /implementation of MPDSR in partnership with Government and hospital providers, correction of deficiencies, monitoring of the corrections.
Inequities in outcome in individual areas	Complacency/ignorance /lack of good data	Partnership with govt., regular review, Emergency Drills (Fire Drills***) MCH programme manager -remunerated*** Public awareness campaign, Bill Boards etc. Feed back and review

*** This document is currently available in English.

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Six pillars -We have divided the topics into 6 areas, based on our experience of the vocational team based training the trainer model in Calmed programme (www.calmedrotary.org) although there have been inevitable overlaps. Please put your comments, suggestions to drhbasumd@gmail.com – we will endeavour to adapt and enhance.

Chapter 3 - PROGRAMME STRATEGY AND STRUCTURE HB

3.1 International experience of preventable maternal and new born mortality in low resource settings, Global Data, 3 - delay model, MMR (maternal mortality ratio), life time risk(LTR)

3.2 – What has happened so far ? MDG 5 Progress , SDG 3 – looking to the future

3.3. CALMED (Collaborative Actions in Lowering of Maternity Encountered Deaths) programme basics – a template of successful action for reduction of preventable maternal deaths – also reduce morbidities and child mortality. Introduced through Rotary Foundation Global Grants in India. Programme legacies are available.(Please see also Chapter 1)

3.4 –Rotarian engagement and collaboration at country levels

- a. with WHO, Governments, working through Quality of Care(QoC) Network and Joint Working Team (JWT)
- b. Rotarians join Rotaractors
- c. Rotarians join with Academic bodies, Professional societies, and NGOs

for generating low cost training resources, advocacy and volunteering - empowerment of communities, health professionals with a women centred joined up approach.

3.5. Developing evidence base for CALMED and related holistic programmes and individual components, for innovation, piloting and implementation.

3.6 – Structured Training in Preventable Maternal and New-Bon Deaths -mission, structure ,output

3.7 – Maternity Emergency Response Network (M.E.R.N.) – Motor Bike Ambulance ,Paramedical Staff Training in emergency resuscitation and care prior to ambulance transfer

3.8, Establishing a Joint Technical Network (JTN) of CALMED programme developers and participants – Obstetricians, Paediatricians, Public Health Experts, IT Specialists, Maternal and Child Health Champions, members of related Rotarian Action Groups and Rotary Fellowships

3.9 Establishing Maternity Alliance for Structured Training (M.A.S.T.) saving mothers and babies

3.10 MATERNAL AND CHILD HEALTH ACADEMY - for empowerment through structured training models.

Chapter 4 - PLANNING AND PREPARATION FOR VTT

4.1 Programme preparatory work – identifying the target area, assessing needs, abilities, priorities, adapting the Calmed template to combined resources and joint priorities. Preparatory work at programme site and international VTT (vocational training team) site (rehearsal, discussions), communication network including skype, working relationship between international and host committees.

4.2. Reconnaissance visit – meeting government – needs assessment, Rotarians, Professionals, Community leaders. Developing two teams; Agree on Check List for programme preparatory partnership, training sites, hosting, transport, administrative issues, funding and procuring resources, risk assessment of the team visit. (Please see also Chapter 2)

4.3. Funding and Networking -Rotary Global Grant application, establishment of funding structure, Rotary Clubs, Rotary Districts, Philanthropists, partnership, MOUs with partners, networking including local and global publicity network.

4.4. VTT Team selection – advertising, interview, selection, team building including communication and rehearsal, planning visits, (please also see Chapter 5.)

4.5. Trainee/Trainer selection in the host country – Government/Rotary/Professional Group/Hospital staff partnership. A 3-4year timed programme of training and retraining covering the entire target area. MOU for resources and required permission.

Chapter 5 – PROCURING AND ASSEMBLING RESOURCES FOR STRUCTURED TRAINING

5.1. Procuring Training Resources – Trainers' Manual, Trainee's manual, Community awareness training manual, presentation tools for lecture, breakout groups, Pre- and Post-test materials for assessment (knowledge, skills, and behavioural change), certificates, charts, videos for training and publicity/awareness, simulators, loading flash drives, cell phones, computers.

5.2 .– Simulators, Manikins – Mama Natalie, Neo Natalie, Mama Birthie, Mama U, Resusc.Anne , readymade simulator models .....see 9.24

5.3 – Films ,Videos (for Professional training , awareness within Communities)

5.4. Seeking resources within the country -equipment, pharmaceuticals and others for diagnosis, monitoring, treatment, and publicity.

5.5. Skills Lab set up -a resource for skills transfer training.

5.6. Funding an administrative set up for coordination of the holistic programme – hospital, community, public health and bridging the gaps and inequalities.

5.7. Telemedicine set up for management and Telehealth for awareness.

5.8. Maternity Emergency Response Network – M.E.R.N. (Ambulance including E-Ranger Bike Ambulance ,Resusc. Equipment, tracking, behavioural changes)

5.9 Training for resuscitation by Ambulance crew and basic health workers (P.O.E.T)

Chapter 6- MONITORING AND EVALUATION , PARTNERSHIP ,QUALITY OF CARE

6.1. WHO Check list (modified)- please see 9.4.

6.2. WHO standards of care review

6.3. Obstetric Quality Assurance (OQA) – please see 7.6 ,9.16.

6.4. Maternal and Perinatal Death Surveillance and Response (MPDSR) – please see 9.16.

6.5. –Engagement , collaboration with Government- please see 7.1 .

6.6. – Collaboration with NGOs, non-Governmental Private Hospitals – please see 7.2.

Chapter 7- ADVOCACY

7.1. Engagement with Government -please see 6.5.

7.2. Collaboration with NGOs, Private Hospitals – please see 6.6.

7.3. Bridging inequalities in service provision, within the target area.

7.4. Improving access to quality care – financial, geographic, cultural/social barriers.

7.5. Satisfying unmet needs of contraception, including long acting reversible (L.A.R.C.) methods.

7.6 WASH programme quality and availability of facilities- monitoring and evaluation of records ,feed back for OQA standards (please see 6.3)

Chapter 8- VOCATIONAL STRUCTURED TRAINING IN MATERNAL AND NEW-BORN CARE

8.1. Needs assessment in target areas to identify goals and resources needed.- please see Chapter 2

8.2. Team Visit/Team Work – VTT Team organisation based on the Faculty working on training the trainer model -Team selection, Team briefing, Programme Director, Team Leader, Course Directors, Team members (Faculty), Administrators

8.3. Preparatory Day – unpacking and assembling the simulators, videos, charts, rehearsal for the training days, check list for resources needed for lectures, breakout sessions, agreed template of action.

8.4. Programme Schedule -various training/mentoring groups – blue, red, green etc.(for training, mentoring etc.) – training the trainers, basic trainees, ASHA trainers, Emergency Responders (Ambulance workers, others) training, Midwife Training, ANM Training ;IN Situ Simulation Training team briefing, de-briefing, return visits, arrangements for reporting, sharing monitoring and evaluation.

VOLUMES 2 and 3

VOCATIONAL TRAINING COMPONENTS IN MATERNAL AND CHILD CARE

Two Manuals are available (Trainers Manual and Trainee's Manual)

9.1.Training-Care of labour – normal labour, Postpartum care, new born care, resuscitation, examination of new born.

9.2 Training -Care of sick babies – resuscitation, preterm, hypothermia, hypoglycaemia, Kangaroo Mother Care (KMC).

9.3.Training- Partograph – normal, abnormal labour.

9.4. Training- WHO Check List (modified) – please see 6.1.

9.5. Training -Maternal resuscitation – structured approach.

9.6.Training - Shock and Hypovolaemia

9.7.Training -Antepartum Haemorrhage (APH).

9.8. Training- PET, Eclampsia.

9.9.Training -Postpartum Haemorrhage (PPH)- retained Placenta.

9.10.Training – Maternity Emergency Response Team -Stabilisation prior to transfer- training of Ambulance Crew, Nurses, Midwives, Emergency Box containing equipment, medication, E-ranger bike ambulance, cell phone based training, tracking device, Telemedicine assistance.

9.11. Training - Abnormal Labour – Twins, Breech, Cord prolapse, Shoulder dystocia, Mal-rotated Head, Obstructed labour

9.12.Training – Sepsis in pregnancy, labour, puerperium

9. 13. Training – Anaemia, HIV

9.14 – Giving Bad News

9.15 – Group Antenatal care

9.16. Training - Family Planning – unmet need ,PP IUD, L.A.R.C.

9.17. Training – MPDSR, OQA - please see 6.3 & 6.4.

9.18. ASHA trainers training – pictorial flip charts, videos, Cell phone based Apps

9.19 . Training – self care guidelines in obstetrics,- Group Antenatal Care

9.20. Training – Blood transfusion.

9.21. Training - Caesarean section

9.22.Pre- and Post- test materials – scoring for knowledge, skills, and behaviour changes

9.23. Post training linkages, Personal interview and feedback, mentoring, teleconference with trainers and trainees, programme legacy handover -return visits

9.24.– Power point slides for al lectures

9. 25. – Training and related videos (list with sources), publicity videos

9.26. – Simulation Training setting up, purchase/procurement, suppliers , web sites – Mama Natalie, Neo-Natalie, Mama U, Resus. Anne, IV access by Phlebotomy, NASG , Episiotomy trainer ,Manual removal of placenta trainer, M.V.A. Trainer ……

9.27. In situ simulation Training

9.28– Distance Learning - Prof Montgomery

9.29 – Training and practice of Tele Medicine

9.30 - Digital Technology in Training and Practice enhancements

9.31 – Advances in women centred care – dignity, respect and empowerment

Appendices –

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